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What is claimed is:

A method of quantitatively evaluating alternatives to check-out operation using simulation model, comprising:

inputting parameter values describing check-out operations into the simulation model;

running the simulation model; and outputting results from the simulation model.

- 2. The method of claim 1, wherein the input parameters are listed in a data input dictionary used to define the parameters used in the simulation model.
- 3. The method of claim 1, wherein the simulation model includes one of a transaction process at two front facing check stands, a transaction process at two back-to-back check stands and a transaction process at two front facing check stands for fast-track customers.
- 4. The method of claim 1, wherein the check out operations include check stand designs, transaction procedures and lane configurations.
- 5. The method of claim 1, wherein the running step is performed in either an unlimited arrival mode and a limited arrival mode.
- 6. The method of claim 1, wherein the simulation model simulates two lane models using parameters representing the following events: pre-itemization, itemization, finalization, bagging and intervention.
- 7. The method of claim 1, wherein the simulation model represents front-end operations of a check out process.

- 8. The method of claim 7, wherein the front-end operations has labor including cashiers, baggers, super-helpers and overflow resources.
- 9. The method of claim 1, wherein the parameters are divided into a configuration category, a customer demand category, schedule category, a transaction category, a transaction itemization category, a transaction finalization category, a transaction bagging category, a transaction intervention category, and a model parameters category.
- 10. The method of claim 9, wherein the configuration category includes parameters defining the length and resources in a scenario.
- 11. The method of claim 10, wherein the resources include a number and type of check-stands and belt size.
- 12. The method of claim 9, wherein the customer demand category has parameters that control the workload on a front-end or lane.
- 13. The method of claim 12, wherein the parameters that control the workload include a number of customer arrivals and customer basket sizes.
- 14. The method of claim 9, wherein the schedules category includes schedules for cashier, bagger and super-helper in 30 minute intervals during a scenario.
- 15. The method of claim 9, wherein the transaction temization parameters are scalar values.

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- 16. The method of claim 15, wherein the scalar parameters are a mean and a standard event time distribution of an event time distribution.
- 17. The method of claim 9, wherein the transaction bagging category includes parameters which govern how long it takes to bag items and which resources are available for bagging.
- 18. The method of claim 9, wherein the model parameters include a number of replications, a stream number identifier and check input option identifier.
- 19. The method of claim 1, further comprising editing the input parameter values.
- 20. The method of claim 1, wherein the input parameter values include a value and a range.
- 21. The method of claim 1, comprising one of outputting a report and displaying an animation of the results of the simulation.
- 22. The method of claim 1, further comprising repeating said running step and step outputting step.
- 23. The method of claim 1, wherein the results of said outputting step includes performance measurements for each type of resource.
- 24. The method of claim 23, wherein the front-end model results include: all measures; baggers; cashiers; regular lanes; fast-track lanes; self-

service lanes, self-service convertible to cashier operated lanes, overall front-end; super-helpers; and express lanes.

- 25. The method of claim 23, wherein the two lane model results include: all measures; customer; cashier; lane; and bagger.
- 26. The method of claim 23, wherein the performance measures include an average, standard error, a minimum and a maximum value for each performance measurement.